



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application No.: 09/702,298

Group: 1743

Filed: October 31, 2000

Examiner: Lyle Alexander

Confirmation No.: 3668

For: AUTOMATED SLIDE STAINER WITH SLIDE HOUSING (Amended)

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APPEAL BRIEF

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Sir:

This Appeal Brief is submitted pursuant to the Notice of Appeal filed with the U.S. Patent and Trademark Office on February 11, 2005, in support of the appeal from the final rejection set forth in the Office Action mailed on September 29, 2004, and in response to the Notification of Non-Compliant Appeal Brief dated July 15, 2005.

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REAL PARTY IN INTEREST

The real party in interest is CytoLogix Corporation of Sharon, Massachusetts. CytoLogix Corporation is the Assignee of the entire right, title and interest in the subject application, by virtue of an Assignment recorded on December 4, 1998 at Reel 009656, Frames 0644-0647.

RELATED APPEALS AND INTERFERENCES

Appellants, the undersigned Attorney, and the Assignee are not aware of any related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 3 through 18 have been finally rejected, and a copy of those claims appear in the Appendix of this Brief. Claims 1 and 2 were previously canceled.

STATUS OF AMENDMENTS

All prior amendments have been entered in the application.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a microscope slide stainer and method in which liquid is dropped from an orifice 5 of a liquid dispenser CP (as shown with respect to Figure 1) into the cavity 512a of a slide housing 522 (as shown with respect to Figure 6). The slide housing 522 and the orifice 5 are capable of movement relative to each other under microprocessor control so as to align the dispenser CP with the slide. *See Figure 5; page 10, lines 12-15; page 13, lines 9-*

19. A liquid aspirator 544 is able to remove liquid from the cavity. *See* page 12, line 16 to page 13, line 8; Figure 11A.

The claimed invention is exemplified by independent Claim 3. For convenience, that claim is reproduced here.

3. A microscope slide stainer comprising:
 - a slide housing into which at least one microscope slide is inserted, said housing having a cavity into which liquids are dispensed, the cavity containing a sufficient volume of liquid to cover the at least one microscope slide;
 - a liquid dispenser including an orifice from which liquid drops into the cavity, said dispenser orifice and slide housing being capable of movement relative to each other under microprocessor control so as to align the dispenser with a slide; and
 - a liquid aspirator, said aspirator being capable of removing liquid from the cavity.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 3-18 were rejected under 35 U.S.C. 102(b), with the Examiner finding the claims to be anticipated by U.S. Patent No. 5,073,504 to Bogen (“the ’504 Patent”), and U.S. Patent No. 4,847,208 to Bogen (“the ’208 Patent”)(collectively “the Bogen Patents”). Appellants respectfully submit that the Bogen Patents fail to disclose all the limitations of the claimed invention.

ARGUMENT

Independent Claims 3 and 11 of the claimed invention requires a “dispenser orifice and slide housing being capable of movement relative to each other under microprocessor control so as to align the dispenser with a slide.” The Examiner cited U.S. Patent No. 5,073,504 to Bogen (“the ’504 Patent”), and U.S. Patent No. 4,847,208 to Bogen (“the ’208 Patent”)(collectively

“the Bogen Patents”) against the claimed invention. In the prior art patents cited by the Examiner, a dispensing orifice is fixed to the slide housing, and one would pivot a slide chamber and manually move a slide relative to the dispenser when placing the slide within the housing.

The issues on appeal are:

1. Has the Examiner set forth a *prima facie* case of anticipation under 35 U.S.C. § 102(b) given that neither the '504 patent nor the '208 patent discloses a dispenser orifice and a slide housing “being capable of movement relative to each other under microprocessor control” of the independent claims?
2. Has the Examiner set forth a *prima facie* case of anticipation under 35 U.S.C. § 102(b) given that neither the '504 patent nor the '208 patent discloses the various limitations of the dependent claims?

In brief, the Bogen Patents disclose a system of staining and rinsing glass slides. Figure 2 of each of the Bogen Patents provides an exemplary embodiment of the system. A slide 21 is placed in a slide chamber 4. An inlet port 10 of the chamber is connected to first end of tubing 10a, a second end of which is connected to one of a plurality of output nipples 11a of a buffer manifold 11. An input nipple (not shown) of manifold 11 is connected to a first end of tubing 12a, a second end of which is connected to a buffer valve 12. Valve 12 is also connected to a first end of tubing 12b, a second end of which is connected to a buffer reservoir 12 c. A suction port 14 of the slide chamber is connected to a first end of tubing 14a, a second end of which is connected to one of a plurality of input nipples 15a of a suction manifold 15. An output nipple (not shown) of manifold 15 is connected to a first end of tubing 16a, a second end of which is connected to a first suction valve 16. Valve 16 is also connected to a first end of tubing 16b, a second end of which is connected to a first input of Y-connector 16c. A second input of Y-connector 16c is connected to a first end of tubing 16f, a second end of which is connected to a second suction valve 17. Suction valve 17 is also connected to a first end of tubing 17 a, a second

end of which is connected to a wide end of a pipette 17b. An output of Y-tube 16c is connected to a first end of tubing 16d, a second end of which is connected to a source of suction 16e.

Anticipation under 35 U.S.C. § 102 requires identical disclosure of the claimed invention in the prior art. *See Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997) (“Under 35 U.S.C. § 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim.”). “Every element of the claimed invention must be literally present, arranged as in the claim.” *Richardson v. Suzuki Motor Co., Ltd.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

A. The Bogen Patents Do Not Disclose A Dispenser Orifice And Slide Housing Being Capable Of Movement Relative to Each Other.

Each of the Bogen Patents discloses a system in which a fixed connection is provided through tubing 10A to the individual slide housing 4. *See* Figure 2 of the '504 Patent and Figure 2 of the '208 Patent. There is no movement of dispensers relative to the housings under microprocessor control as required by the claimed invention. As an initial matter, the Examiner misconstrues the claim limitations of the present invention. In a Final Rejection dated, September 29, 2004, the Examiner stated:

Applicant's [sic] states the remainder of the references have not been properly applied because they fail to teach movement of the fluid dispenser. These remarks are not commensurate in scope with the claims, which only require relative movement between the dispenser and the slide. The cited prior art clearly teaches movement of the slides to be positioned under the dispenser.
(Emphasis added)

The Examiner's November 22, 2004 Advisory Action¹ maintains this position without further discussion. However, the claims of the present invention, as written, require relative movement between an "orifice of the dispenser and the slide housing under microprocessor control"; they do not require "relative movement between the dispenser and the slide," as stated by the Examiner.

Although the Bogen Patents provide for a slide stainer, they fail to disclose the claimed microscope slide stainer having "relative movement between an orifice of the dispenser and the slide housing." In each of the Bogen Patents, one would pivot the slide chamber (housing) 4 and manually move the slide relative to the dispenser when placing the slide within the fixed slide housing. In the Bogen Patents, the dispensing orifice 10 is fixed to the slide housing, so the two are not able to move relative to each other, and they certainly do not move under microprocessor control.

Because the Bogen Patents fail to disclose "relative movement between an orifice of the dispenser and the slide housing," they do not provide an identical disclosure of the claimed invention. Every claim either recites this limitation, or contains the limitation through dependency. Therefore, Appellants respectfully submit that the Examiner has failed to make out a *prima facie* case under 35 U.S.C. § 102.

B. The Bogen Patents Do Not Disclose Limitations in Dependent Claims

With respect to the various dependent claims in the present patent application, the Examiner has not shown that the Bogen Patents disclose the claimed features, and therefore has not set forth a *prima facie* case of anticipation.

¹ On November 11, 2004, Appellant filed a Response After Final Rejection Under 37 C.F.R. § 1.116.

1. The Bogen Patents Do Not Disclose A Slide Carrier Capable Of Moving The Slide That Is Contained In The Slide Housing

The Bogen Patents do not disclose “a slide carrier capable of moving the slide that is contained in the slide housing” as recited in claim 4 (and analogous method claim 15). The Examiner has not pointed to any section of the Bogen Patents that disclose this limitation. As shown in Figure 2 of both the Bogen Patents, the slide housing 4 is fixed, and therefore, once the slide is in the slide housing 4, it is not capable of movement.

Therefore, Appellants respectfully submit that the Examiner has failed to make out a *prima facie* case under 35 U.S.C. § 102.

2. The Bogen Patents Do Not Disclose A Heater Capable Of Heating The Slide That Is Contained In The Slide Housing, And More Particularly A Heating Element That Is Adjacent to the Slide

The Bogen Patents do not disclose “a heater capable of heating the slide that is contained in the slide housing” as recited in claims 5 and 8 (and analogous method claims 13 and 14), and even more particularly a heating element that is “adjacent to the slide” as recited in claims 6 and 9. The Examiner has not pointed to any section of the Bogen Patents that disclose this limitation. Neither of the Bogen Patents mention a heating element, much less one that is adjacent to the slide.

Therefore, Appellants respectfully submit that the Examiner has failed to make out a *prima facie* case under 35 U.S.C. § 102.

3. The Bogen Patents Do Not Disclose A Liquid Aspirator Having A Vacuum Hose Transport Mechanism For Bringing The End Of A Vacuum Hose To The Cavity In The Slide Housing

The Bogen Patents do not disclose a liquid aspirator having a “vacuum hose transport mechanism for bringing the end of [a] vacuum hose to the cavity in the slide housing” as recited

in claim 10 (and analogous method claim 12). In the present application, and specifically with reference to Figures 11A and 11B, a vacuum host transport mechanism 560 allows the vacuum hose 544 to be extended down into a cavity of a slide housing 510 to remove any rinse and reagent covering the tissue sample of the slide. The Examiner has not pointed to any section of the Bogen Patents that disclose this limitation. As described above with respect to Figure 2 of each of the Bogen Patents, the end of the vacuum hose 14 is fixed relative to the cavity in the slide housing. A pipette 17b is also available for aspirating liquid, but it is moved manually. There is no vacuum hose transport mechanism.

Therefore, Appellants respectfully submit that the Examiner has failed to make out a *prima facie* case under 35 U.S.C. § 102.

4. The Bogen Patents Do Not Disclose A Slide Housing And Liquid Aspirator Capable Of Relative Movement Under Microprocessor Control So As To Align The Aspirator With A Slide

The Bogen Patents do not disclose having the slide housing and liquid aspirator “capable of relative movement under microprocessor control so as to align the aspirator with a slide” as recited in claim 18. The Examiner has not pointed to any section of the Bogen Patents that disclose this limitation. As described above with respect to Figure 2 of both of the Bogen Patents, the vacuum hose 14 is fixed relative to the slide housing, and the pipette 17b is moved manually.

Therefore, Appellants respectfully submit that the Examiner has failed to make out a *prima facie* case under 35 U.S.C. § 102.

CONCLUSION

Appellants respectively submit that all the remaining claims in the application are in condition for allowance. The cited references fail to disclose all claim limitations as required for a rejection under 35 U.S.C. § 102(b).

The grounds for rejection under 35 U.S.C. § 102(b) should be reversed.

Please charge any fees that may be due in this matter to Deposit Account No. 08-0380.

Respectfully submitted,

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CLAIMS APPENDIX

3. A microscope slide stainer comprising:
 - a slide housing into which at least one microscope slide is inserted, said housing having a cavity into which liquids are dispensed, the cavity containing a sufficient volume of liquid to cover the at least one microscope slide;
 - a liquid dispenser including an orifice from which liquid drops into the cavity, said dispenser orifice and slide housing being capable of movement relative to each other under microprocessor control so as to align the dispenser with a slide; and
 - a liquid aspirator, said aspirator being capable of removing liquid from the cavity.
4. A microscope slide stainer as claimed in claim 3 further comprising a slide carrier capable of moving the slide that is contained in the slide housing.
5. A microscope slide stainer as claimed in claim 4, further comprising a heater capable of heating the slide that is contained in the slide housing.
6. A microscope slide stainer as claimed in claim 5 wherein the heating element is adjacent to the slide.
7. A microscope slide stainer as claimed in claim 4, further comprising a pressurized rinse bottle from which rinse fluid is dispensed into the cavity of said slide housing.
8. A microscope slide stainer as claimed in claim 3, further comprising a heater capable of heating the slide that is contained in the slide housing.
9. A microscope slide stainer as claimed in claim 8 wherein the heating element is adjacent to the slide.

10. A microscope slide stainer as claimed in claim 3, wherein the liquid aspirator comprises:
 - a vacuum bottle;
 - a vacuum hose extending from the vacuum bottle; and
 - a vacuum hose transport mechanism for bringing the end of the vacuum hose to the cavity in the slide housing.
11. A method of staining slides comprising:
 - inserting a slide into a slide housing, said housing having a cavity into which liquids can be dispensed, the cavity containing a sufficient volume of liquid to cover the at least one microscope slide;
 - moving the slide housing and an orifice of a liquid dispenser, from which liquid drops into the cavity, relative to each other under microprocessor control into alignment;
 - dispensing liquid into the cavity of said housing through the orifice, said liquid also contacting said slide; and
 - aspirating liquid from the cavity of said housing.
12. The method of claim 11, wherein the liquid is aspirated from the cavity of said housing by extending a vacuum hose to the cavity and collecting the liquid into a vacuum bottle.
13. The method of claim 12, further comprising heating the slide contained in the slide housing.
14. The method of claim 11, further comprising heating the slide contained in the slide housing.
15. The method of claim 11, further comprising moving a slide that is contained in a slide housing.

16. The method of claim 15, further comprising adding rinse fluid from a pressurized rinse bottle.
17. The method of claim 11 further comprising the step of moving the slide housing and a liquid aspirator relative to each other prior to aspirating liquid from the cavity of said housing.
18. A microscope slide stainer as claimed in claim 3 wherein the slide housing and liquid aspirator are capable of relative movement under microprocessor control so as to align the aspirator with a slide.

EVIDENCE APPENDIX

None

RELATED PROCEEDING APPENDIX

None